

## ABSTRACT

Object: The present invention aims at providing a photocatalyst capable of utilizing not only an ultraviolet range but also a visible range in a manner to use the catalyst for a decomposition treatment of harmful chemical substances in a gaseous phase or liquid phase, thereby providing means for detoxifyingly treating harmful substances.

Solving Means: The problem is solved by preparing a photocatalyst comprising, as a catalytic component, a complex oxide semiconductor represented by a general formula (I):  $\text{BaBi}_x\text{O}_y$  (wherein  $x$ ,  $y$  have values satisfying  $0.5 < x < 2$  and  $2.5 < y < 4$ , respectively), and by using the photocatalyst.